



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,006	12/30/2003	Ellen Lasch	37355-169	8389
66283	7590	07/26/2007	EXAMINER	
AMERICAN EXPRESS COMPANY C/O MCDERMOTT WILL & EMERY LLP 227 WEST MONROE STREET, SUITE 4400 CHICAGO, IL 60606-5096			MAI, THIEN T	
		ART UNIT	PAPER NUMBER	
		2876		
		MAIL DATE	DELIVERY MODE	
		07/26/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/749,006	LASCH ET AL.
	Examiner Thien T. Mai	Art Unit 2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

#### A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 27 April 2007.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1 and 4-29 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1 and 4-29 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 28 June 2004 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 5/07.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Acknowledgement***

Amendment filed by applicants 04/27/2007 and IDS filed 05/17/2007 are hereby acknowledged.

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support found in the specification that indicates "at least 8 mils" of the claimed metal layer comprises embossed characters. Furthermore, the terms "at least" would give rise to an infinite upper limit that the specification does not encompass. Also see *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976) (the ranges described in the original specification included a range of "25%- 60%" and specific examples of "36%" and "50%." A corresponding new claim limitation to "at least 35%" did not meet the description requirement because the phrase "at least" had no upper limit and caused the claim to read literally on embodiments outside the "25% to

60%" range, however a limitation to "between 35% and 60%" did meet the description requirement)

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 27 recites the limitation "said first layer" in lines 2 and 4. There is insufficient antecedent basis for this limitation in the claim.

### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 27 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 5, 25 of copending

Application No. 11/044,662. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are directed to a transaction card having metal layer of titanium or stainless steel having embossed characters on the metal layer.

Present claims recite:

Claim 1 (previously presented): A transaction card comprising: a first layer of metal selected from the group consisting of titanium and stainless steel contained within the transaction card, wherein said first layer of metal has a thickness of at least 8 mils; and a recordable medium on or within said transaction card for storing information relating to a transaction account, wherein said first layer of metal comprises embossed characters.

Claim 27 (new): A transaction card consisting essentially of: a layer of metal selected from the group consisting of titanium and stainless steel contained within the transaction card, wherein said first layer of metal includes a recordable medium on or within said transaction card for storing information relating to a transaction account, and further wherein said first layer of metal comprises embossed characters.

whereas application 11/044,662 recites

Claim 1 (previously presented): A transaction card comprising: a first surface and a second surface; at least one layer comprising metallic titanium wherein said at least one layer has a thickness greater than about 6 mils; and

a first pocket disposed in the at least one layer comprising metallic titanium.

Claim 2 (original): The transaction card of claim 1 further comprising: an inset fill panel adhered within the pocket.

Claim 3 (original): The transaction card of claim 1 further comprising embossed characters punched into the transaction card within the pocket and protruding from the second surface of the transaction card.

Claim 5 (original): The transaction card of claim 4 wherein the transaction card feature is selected from the group consisting of a signature panel, a magnetic stripe, a microchip, and a holographic image.

Claim 25 (previously presented): The transaction card of claim 1 wherein said at least one layer of metallic titanium has a thickness of between about 6 mils and about 30 mils.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim(s) 1-14, 18-20, 22, 27-28 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Conner (20050194453) in view of Roberts (6025283) further in view of Robinson et al. (US 20030047253)

Conner discloses a card comprising: a first layer of metal position at bottom of the transaction card (Specification par. 0011); a recordable medium for storing

information such as a chip 11 (Fig. 1) circular disk (Fig. 27-29) or magnetic strip affixed to the back the card (Specification par. 0011), inherently implies being disposed on the first layer of the metal card; a second plastic layer comprising of two layers upper and middle (Specification par. 0011), adjacent and laminated to the metal layer (Specification par. 0079), which is made of PVC (Specification par. 0070), known in the art as thermoplastic polyvinyl material

wherein the metal layer is made of titanium (Specification par. 0076) or 300 series stainless steel (Specification par. 0070, 0076), which is on the bottom (Specification par. 0011) of the card and thus provides a surface for the transaction card.

Conner does not suggest the first metal layer to comprise embossed characters.

Roberts discloses a card having a precious metal layer such as gold. Roberts doesn't expressly mention precious metals include titanium; however, titanium is known for its expensiveness and is therefore considered a precious metal. The characters representing account numbers and/or name are embossed onto the metal layer, which is done by mechanical technology or laser etching techniques (col. 4 lines 42+). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Roberts to the metal layer of Conner since the incorporation would prolong the information embossed on the metal layer.

The metal layer of Roberts containing the embossed characters is 600 microns which is 7.874 mils; however, Roberts is silent with respect to the metal layer is of at least 8 mils. It would have been obvious to one of ordinary skill in the art at the time the

invention was made to recognize that by mere scaling/changing the layer from 7.874 mils to 8 mils is not sufficient to distinguish from prior art unless perform differently. See *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984). Roberts is further silent with respect to a layer of metals of at least 8 mils capable of being embossed. Robinson et al. discloses it is well known in the art to emboss sheet of metal including stainless steel and titanium that is at least 8 mils (paragraphs 8-9, 24, 28, 35, 47). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Robinson et al. in order to obtain an embossed metal layer of at least 8 mils as desired and to be measurable by devices that only use mils as measuring unit.

Regarding claim(s) 9 and 13, Conner discloses the magnetic strip is affixed to the back of the card, inherently implies the affixation is adjacent to the metal layer. Conner further mentions an affixation is accomplished by glue (Specification par. 0072), which inherently implies an adhesive layer being deposited already in order to glue/affix the stripe.

Regarding claim(s) 10, 12, and 14, Conner discloses all layers of the transaction card can alternately be made all of titanium layers or alloys or other metals (Specification par. 0076). As the result, the middle layer 33 or 6, interpreted as being the first layer of metal, is adjacent to the bottom being the second layer of substrate and

the second layer is already proven in claim 9 for having an adhesive layer onto which the magnetic stripe is affixed (see discussion regarding claim 9).

Regarding claim(s) 20, Conner discloses the metal layers further include a cavity in which a chip 11 is embedded (Fig. 12).

Regarding claim(s) 22, Conner discloses the layers making up the transaction card can alternately be made all of titanium layers or alloys or other metals (Specification par. 0076) and the thickness of the card is desired to be compliant with ISO-7816 standard thickness of .031 inches (or 30 mils) (Specification par. 0068-69). Accordingly, the total thickness of the metal layer of the card in this embodiment is about 30 mils thick.

Re claim 27, Conner teaches the metal layers have a opening for receiving a chip 11.

5. Claim(s) 15-17 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Conner (20050194453), modified by Roberts (6025283) and Robinson et al. (US 20030047253) , further in view of Kaminsky (20040121257).

Regarding claim(s) 15-17, Conner discloses all limitations set forth in this claim as discussed above, except a surface coating that is made of pholyethylene terephthalate material and comprises a dye for providing color to the card. Kaminsky discloses a transaction card with a metal layer 16 coated on the surface with a colored dye donor layer made of polyethelene terephthalate (Specification par. 0078, 0091).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the color dye of Kaminsky into Conner's invention with

the motivation for the desire for manufacturing cards with different colors for different financial institutions.

6. Claim(s) 21, 29 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Conner (20050194453), modified by Roberts (6025283) and Robinson et al. (US 20030047253) , further in view of Hinata (20030202151).

Regarding claim(s) 21, Conner discloses all limitations set forth in this claim as discussed above, except an oxide layer on a surface of the metal layer being formed from an anodizing process. Hinata discloses such technique is known in the art. See reference text below:

"The insulator 66 is fabricated of tantalum oxide (Ta<sub>2</sub>O<sub>3</sub>) that is obtained by oxidizing the first metal layer 65 through anodizing. When the first metal layer 65 is anodized, the surface of the first layer 79a of the line wiring 79 is also oxidized. Similarly, a second layer 79b fabricated of tantalum oxide is thus formed." (Specification par. 0133)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize anodizing technique to achieve bonding thus preventing the metal layer from peeling off.

7. Claim(s) 23-24 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Conner (20050194453), modified by Roberts (6025283) and Robinson et al. (US 20030047253), further in view of Makishima (3468046) and Biller (20030150762). The teachings of Conner/Roberts have been discussed above.

Regarding claim(s) 23, Roberts discloses a card having a recessed pocket from which embossed characters are protruded by the embossing process so that the thickness of the card conforms with ISO standard thickness. See the following text:

"Advantageously, to conform with ISO standards, the card can be milled out to provide a recess of 600 micron to accommodate SMART card technology and can thereafter be embossed." (col. 4 lines 46-49)

Conner-Roberts combination still fails to teach or reveal a filler panel being disposed within the pocket. However Makishima discloses card having a light filter 3 with translucent film 4, made so that the signature is invisible light in the visible spectrum but visible under ultraviolet light, is inserted to fill the pocket having indicia such as character signature in it (col. 3 lines 33-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use a fill panel such as of Makishima with the motivation for the desire for further security for the transaction card.

Regarding claim(s) 24, Conner-Roberts-Makishima together still fails to teach an adhesive layer being disposed within the pocket to adhere the fill panel covering indicia. However, Biller discloses a label, interpreted as the fill panel, is used to adhere using adhesive material and cover indicia on the card (see Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention use a fill panel such as of Biller's to cover indicia such as account number or signature area for security protection purposes.

8. Claim(s) 25 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Conner (20050194453), modified by Roberts (6025283) and Robinson et al. (US 20030047253), further in view of Hara (US Patent 4,876,441, Hara'441 hereafter). The teachings of Conner/Roberts have been discussed above.

Regarding claim(s) 25, Conner discloses all limitations set forth in this claim as discussed above except for the transaction card to have chamfer edges around the perimeter of the card. Hara'441 discloses chamfering edges are provided around the perimeter for protection of the core portion which houses peripherals (col. 11 lines 11-35, Fig. 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to be motivated to utilize Hara's invention to further protect the electronics inside such as chip and to avoid incidents caused by sharp and non-chamfered edges.

### **Remarks**

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection. The Examiner agrees that the previously cited references does not teach the newly added limitation, however, further prior art search indicates that such limitation is also known. Applicants are respectfully requested to further narrow the claims so that the case is placed in allowable condition. Applicants are respectfully requested to go through references below, which may be pertinent to Applicants' invention.

Beside cited references, Patent issued to Ohta et al. (6,942,156) discloses Titanium oxide mixed with other ingredients to form a card of 30 mils in thickness, which is then embossed; Kudo et al (20040026518) discloses Titanium oxide in an embossed card; Morgan (4,923,471) and Takamura (US 5,309,840 teach embossing and deposition of titanium onto a substrate. Davis et al. (4,745,267) teaches that expiration date is normally printed on a card, which can be considered embossed characters permanently attached to the card and can be applied to Roberts using obviousness citation.

In response to Applicants assertion that titanium and stainless steel are not a precious metal, it is respectfully submitted that Roberts teaches embossing of precious metal layer in a transaction card, wherein Roberts specifically defines "The term precious metal used herein includes **high value metals** such as platinum, gold (at all carats) and silver" (col. 1 lines 47-48). Website dictionary.reference.com also has definition of precious being high value or costly. To support for the argument that Titanium is of high value, at least having the same or better value than at least one of the three metals included in Roberts' teaching, Applicants are respectfully advised to view Non-Patent Literature documents obtained from merchant websites selling rings. www.amazon.com and www.saltlakesilver.com both show that Titanium rings having a higher value in price at least than those made from Silver. On another note, paragraphs 0058 and 0066 of reference Koike et al. (20020185561) also teach that "precious metals means a material having a small ionization tendency and, for example, gold, silver, nickel, titanium, chromium, a titanium alloy,... These precious metals have high

durability and strength...". Har-Shai (6,544,315) in claim 12 considers titanium as precious metal as well. Therefore, although Roberts does not expressly mention Titanium in the precious metal group having high values, Titanium is inherently considered to be included therein.

In response to Applicants contention that "In further support of patentability over Conner et al. in view of Roberts, Applicants note that titanium's and stainless steel's high strength-to-weight ratio and tensile strength further differentiates them from gold, silver, and platinum. Gold, silver, and platinum are heavy, soft and/or malleable metals. A sheet of soft, malleable metal is easily embossed. In contrast, titanium and stainless steel are relatively lightweight, hard, and exceptionally strong. Their strength and hardness make embossing difficult. Thus, by teaching an embossed gold, silver, or platinum layer, Roberts does not suggest titanium or stainless steel. Moreover, Roberts teaches a flexible card, one that is "sufficiently elastic to allow a surprisingly high degree of deformation" and has a "considerable degree of flexibility." (col. 2, lines 4-5 and lines 17-18) A card utilizing a layer of titanium or stainless steel would neither be considerably flexible nor surprisingly deformable. To the contrary, the same properties that make titanium and stainless steel difficult to emboss also makes them difficult to bend. Thus, Roberts must be read to teach away from strong and relatively inelastic metals such as titanium and stainless steel." It is respectfully submitted the claims do not recite any limitations with regards to the rigidity of the claimed Titanium product in comparison with other metals and that Roberts' teachings include different metals, as mentioned above, that have different degrees of hardness and strength. Roberts have

further recognized the relativity in strengths of the metals. Therefore, it is believed that an artisan skilled in the art would make use of the teachings of Roberts on Titanium.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thien T. Mai whose telephone number is 571-272-8283. The examiner can normally be reached on Monday through Friday, 8:00 - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Lee can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Thien T Mai  
Examiner  
Art Unit 2876

TM

July 07

  
STEVEN S. PARK  
PRIMARY EXAMINER